

REMARKS

In the Office Action of September 7, 2007 Claims 1 through 45 are pending. Claims 26 through 42 stand rejected. Claims 1-25 and 43-45 have been withdrawn. Claims 46 and 47 are newly added.

Claims 26 and 27 have been amended to more clearly define Applicant's invention. In addition, other dependent claim amendments more specifically cover novel aspects of the invention. The claims thus have been amended to more clearly articulate that the density controlling agent according to the present disclosure comprises hollow particles. Support for the amendments can be found throughout the specification, with particular reference to page 12 of Applicant's specification. Support for newly added Claims 46 and 47 can be found on page 12 of Applicant's specification. Applicant submits that no new matter has been added.

Rejection under 35 U.S.C. § 102

The Examiner rejected Claims 26-41 under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 6,319,507 to Delrieu et al. ("Delrieu"). Delrieu does not disclose or teach all of the elements of Applicant's invention. The rejection is respectfully traversed.

In contrast to Delrieu which has silica shells that absorb oil, the present innovation relates to a stable and uniform distribution of gel beads or other particulate material, dispersed in a liquid medium that can be obtained by including a density-reducing agent within the gel bead to provide the particle with a desired bulk density.

Claim 26 and Claim 27 recite the use of a substantially impermeable density-reducing agent. Dependent claim 51 recites that the density-control agent comprises a plurality of hollow particles. These hollow particles are used to control the density of the density controlled beads. These hollow particles may be filled with gas to control the density of the beads.

Delrieu is directed to crushable gel beads formed of an agar complex. The preferred agar beads are complexes of a continuous phase of agar gel in self supporting solid or semi-solid form with a restraining polymer. Delrieu is not directed to density controlled gel beads.

The examiner states that “Delrieu et al. discloses the use of 1.6g of silica shells (with an apparent density of 0.5-1.0g/in³, 1.5 agar(gel bead), 1.5 g PG-hydroxyethylcellulose stearyldimonium chloride (restraining polymer), 10g dipropylene glycol and 97g water.” (Office Action, page 8). Applicant respectfully disagrees that Delrieu anticipates the use of a density-control agent because as noted at column 20, line 21, the shells are absorbent and thus do not provide effective control density.

Delrieu discloses the use of “porous inert particles, for example, silica spheres, or porous microspherical inert polymers.” (Col. 19, lines 50-65). In example 15, the formation of agar beads with solvent includes the use of “oil-absorbent silica shells.” (Col. 21, lines 20-25). The silica spheres of Delrieu are not hollow and are porous and oil-absorbent. Because such particles become loaded with oil, they do not accurately affect the density of the beads. Once filled with oil, as they are in the final product, the sphere are no longer hollow and thus do not meet the recitations of the claims. Moreover, before they fill with oil, they provide no control to reduce density as they immediately begin to fill with oil, causing density to vary over time. Thus, Delrieu does not disclose nor teach the use of hollow particles to affect the density of the beads as required by the claims of Applicant’s disclosure.

Accordingly, Delrieu does not anticipate independent claim 26 and dependent claim 27 as currently amended. Applicant respectfully requests that the rejection be withdrawn.

Dependent claims 48, 51 and 52 include limitations on the density-control agent, which as previously discussed is not disclosed in Delrieu. Moreover, Delrieu does not anticipate the hollow particle density-control agent as required by the current independent claim. Additionally, dependent claims 28-41 depend from independent claim 26 and

dependent claim 27 and for the reasons noted above are not anticipated by Delrieu. Accordingly, Applicant respectfully suggests that the claims as presently amended overcome the rejection. Applicant respectfully requests the rejection be withdrawn.

CONCLUSION

Applicants submit that the claims are in condition for allowance, and such action is respectfully requested. If the Examiner should have any questions concerning this communication or feels that an interview would be helpful to expedite allowance of this case, the Examiner is requested to call Applicants' undersigned attorney.

The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. 50-0369, Attorney Docket No. 25629/16, Customer No. 21710.

Respectfully submitted,

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